1-1-Tec-RC

OS REGISTRY
9 JUN 1988

MEMORANDUM FOR: Chief, Technical Security Staff, OIT

FROM: [redacted] STAT
Chief, Information Security Group, OS

SUBJECT: Electronic Release of Cables [redacted] 25X1

REFERENCE: OIT-0335-88 (dtd 20 Apr 88) Same Subject

1. Your memo dated 20 April requests formal Office of Security concurrence with the parameters outlined in the memorandum for electronic release of Cable traffic from the ETECS computer system (Electronic Editing and Text Composition
25X1 System) located in Printing & Photography Division (P&PD). [redacted]

2. This office has several concerns about using the ETECS system as a communications processor from the P&PD location. Mechanisms need to be defined to ensure that only the intended information is passed from ETECS to the Message Handling Facility; that integrity of the interface between ETECS and the Message Handling Facility is maintained; and, that the ADP functions of ETECS are logically isolated from the communications functions performed in support of the proposed
25X1 capability. [redacted]

3. Some means of achieving the desired capability were discussed with OIT/TSS and OC/CSD including: locating a remote MHF OCR in the ETECS facility; locating a remote ETECS printer co-located with the current OCR installation; and, direct electronic connection from ETECS to the Message Handling Facility. We understand that the Director, Current Production and Analytic Support, prefers the latter alternative. In either case a simulation of OCR function would be needed in ETECS. In either of these cases, specific integrity requirements would apply, and are particularly germane in an ADP
25X1 system which performs both communications and ADP functions. [redacted]

25X1 [redacted]

OS 88-2092

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4. The attachment outlines the types of integrity constraints on ETECS that we believe would be needed additional to the parameters suggested in your memorandum. This type of installation, or addition to an existing installation, clearly falls within the purview of the Office of Information Technology and the Office of Communications, and we defer to those offices for determination of the full interface control
25X1 doctrine. [redacted]

[redacted] STAT

Attachment

cc: Chief, CSG/OIT
Chief, OG/OIT
[redacted] CPAS STAT

!OS/ISG/PTS/TSD/SAB/JCostantini:bjs/S-32166 (25 May 1988)!

!Distribution:!
!Original - Addressee!
!1 - Chief, CSG/OIT!
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!1 - [redacted] CPAS! STAT
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1 - OS Registry

Attachment to Memorandum, Subject: Electronic Release of Cables

1. There must be a written interface control doctrine (ICD) for connection of ADP systems to a communications processor and for implementation of the necessary communications functions in an ADP system. It should include, at least, the following elements:

a. Memory techniques such as cyclic redundancy codes, or other error detection techniques to ensure the integrity and isolation (from other ETECS data) of data stored in the memory of ETECS. Sufficient checks should be placed in ETECS to prevent the transmission or manipulation of data that is unable to pass these checks.

b. Each message or message entity (e.g. file) should have a unique reference number appended or embedded for integrity verification, auditing, and reference while it is stored on disk or in memory in ETECS.

c. The last record of each message stored on disk and in main memory should be completely padded with null data from the last valid character to the end of the storage associated with the entity.

d. Data storage areas for messages (buffers, control blocks, etc.) in main memory should be cleared upon completion of use. And should be clear of information prior to being reused.

e. Verification of correct transfer between ETACS and MHF should be performed for each message block transferred. This can be accomplished using a flow controlled protocol. The use of a pure asynchronous protocol should be avoided.

2. Furthermore I recommend that the following additional requirements be added to the list. These are communications processor functions, and OIT, or OC, may not want an ADP system to be involved in these checks. We defer to the Office of Communications and the Office of Information Technology determinations in these matters.

a. That the ETECS perform message format validation. MHF will perform this function, but it would be better, and more efficient, to not force MHF to handle messages which can be rejected in ETECS.

b. That the ETACS perform a block check count at message generation and re-compute (validate) that count prior to transfer to MHF. Again, to save forcing MHF rejection of the message.

c. That the ETACS compare the transmission release code (TRC) for consistency with the handling caveats and classification contained on the header format lines prior to transfer of the message to MHF.

d. That addressing files (Plain language or routing indicators) in ETACS, if any, should be protected and managed carefully, and should be validated by ETACS management every time that they are loaded or updated.

e. That ETECS copy to a journal each message dispatched to MHF. This journal should include the identity of the releaser.